

REMARKS

Claims 1, 3, 5, 6, 8 and 12 have been amended to improve form and claims 16 and 17 have been added. Claims 1-17 are now pending in this application.

Claims 1, 3, 4, 12 and 13 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Somers (U.S. Patent 6,243,396). The rejection is respectfully traversed.

Claim 1, as amended, recites that the performance measurement module is configured to modify an estimated capacity of the service provider based on the measured performance. Support for this feature is given, for example, on page 11, lines 13-18 of the specification.

As to claim 1, the Office Action states that Somers discloses a system having a service level agreement manager disposed between a client computer system and a service provider computer system. The Office Action states that Somers discloses that a customer communicates with an authority and the authority controls the resources. The Office Action further states that the customer is equivalent to a client, the authority is equivalent to the service level agreement manager and the resource is equivalent to the service implementation (Office Action – page 2). The Office Action further states that Somers discloses that the authority includes the claimed admission controller, performance measurement module and specification module and points to col. 10, lines 66-67 and col. 11, lines 1-48 for support (Office Action – pages 2-3). The applicant respectfully disagrees.

Somers discloses a management system that has a hierarchical structure of interconnected management authorities that control communication network resources (Somers – Abstract). Somers at col. 10, line 66 to col. 11, line 48 discloses that a five-stage negotiation model covers the interface between customers and authorities. More particularly, Somers discloses that the customer sends a message containing a set of termination points for a required resource trail,

together with traffic descriptions and desired Quality of Service (QoS) characteristics. The service agent contacts the local configuration agent to determine whether it is the spanning authority. If the service agent belongs to the spanning authority, it creates a Service Level Agreement (SLA) (Somers – col. 11, lines 1-25).

Somers further discloses that to limit interactions between distributed agents, each service agent maintains a list of performance indices which describe the performance of sub-authorities together with an estimate of how congested the termination points at the borders of the sub-authorities are. The performance indices are divided into service performance and management performance indices (Somers – col. 11, lines 26-48).

This portion of Somers does not disclose that the authority (alleged to be equivalent to the service level agreement manager) includes an admission controller, a performance measurement module and a specification module, as recited in claim 1. The applicant respectfully requests that any subsequent Office Action particularly identify where these elements are allegedly disclosed in Somers. This will enable the applicant to more clearly understand how Somers is being construed to read on the claimed features. In any event, Somers does not disclose or suggest a service level agreement manager that includes the claimed admission controller, performance measurement module and specification module.

Claim 1 also recites that the performance measurement module is configured to measure performance of the service implementation and modify an estimated capacity of the service provider based on the measured performance.

Somers, as discussed above, may disclose that each service agent maintains a list of performance indices which describe the performance of sub-authorities together with an estimate as to the congestion of the termination points at the borders of the sub-authorities (Somers – col.

11, lines 26-48). Somers, however, does not disclose measuring performance of the service implementation and modifying an estimated capacity of the service provider based on the measured performance, as recited in amended claim 1.

Therefore, for at least the reasons discussed above, Somers does not disclose or suggest each of the features of claim 1. Accordingly, withdrawal of the rejection and allowance of claim 1 are respectfully requested.

Claim 2 depends on claim 1 and is patentable for at least the reasons given with respect to claim 1. Accordingly, withdrawal of the rejection and allowance of claim 2 are respectfully requested.

Claims 3 and 12, as amended, recite features similar to those discussed above with respect to claim 1. Similar to the discussion above with respect to claim 1, Somers does not disclose or suggest each of the features of claims 3 and 12. Accordingly, withdrawal of the rejections and allowance of claims 3 and 12 are respectfully requested.

Claims 4 and 13 depend on claims 3 and 12, respectively, and are patentable for at least the reasons their respective independent claims are patentable. Accordingly, withdrawal of the rejections and allowance of claims 4 and 13 are respectfully requested.

Claims 2 and 14 have been rejected under 35 U.S.C. § 103 as being unpatentable over Somers. The rejection is respectfully traversed.

Claims 2 and 14 depend on claims 1 and 12, respectively, and are patentable for at least the reasons their respective independent claims are patentable. In addition, these claims recite additional features not disclosed or suggested by Somers.

For example, claim 2 recites that the specification module is configured to compare the service implementation performance data and client usage information. The Office Action

admits that Somers does not disclose this feature. The Office Action, however, indicates that Somers does compare data because the service agent in Somers forwards the results of the comparison to the configuration agent and points to col. 10, lines 66-67 and col. 11, lines 1-48 for support (Office Action – page 5). The Office Action also indicates that the functions performed by the service agent in Somers are allegedly similar to the functions performed by the claimed specification module and presumably, it would have been obvious to modify Somers to include a specification module that performs the claimed function (Office Action – page 5). The applicant respectfully disagrees.

Somers at col. 10, line 66 to col. 11, line 48 may disclose that each service agent maintains a list of performance indices which describe the performance of sub-authorities. The performance indices, as discussed above, may be divided into service performance and management performance. Somers discloses that the service performance indicates how well a particular sub-authority can provide a service (Somers – col. 11, lines 33-35). Somers discloses that the management performance indices capture how the whole region of the authority will benefit by routing a request through a specific authority (Somers – col. 11, lines 36-38).

This portion of Somers does not disclose or suggest comparing service implementation performance data and client usage information, as recited in claim 2, much less that the comparing is done by a specification module.

For at least these additional reasons, withdrawal of the rejection and allowance of claim 2 are respectfully requested.

Claims 5-11 and 15 have been rejected under 35 U.S.C. § 103 as being unpatentable over Somers in view of Ball et al. (U.S. Patent 6,446,200; hereinafter Ball). The rejection is respectfully traversed.

As to claim 5, the Office Action states that Somers discloses a method for managing system performance that includes sending a message from a customer to a service agent (Office Action – page 6). Apparently, the Office Action considers the service agent, which is part of an authority, to be equivalent to the claimed service level agreement manager.

The Office Action also states that service agent responds to the customer by checking SLA parameters and if the request is within the scope of the SLA, providing the request to a performance measurement module and points to col. 12, line 66 to col. 13, line 16 for support (Office Action – page 6). The applicant respectfully disagrees.

Somers at col. 12, line 66 to col. 13, line 16 discloses that a performance agent provides performance summaries to a collection of agents. Somers discloses that the performance agent informs the service agent when the traffic demand schedule associated with a customer's resource is about to change.

This portion of Somers, or any other portion, does not disclose a service level agreement manager that provides a request from a client organization to a performance measurement module and to the service organization, as recited in claim 5. This portion of Somers also does not disclose or suggest taking at least one performance measurement associated with performance response of the service organization to the request or checking the at least one performance measurement taken against the service level agreement, as also recited in claim 5.

The Office Action admits that Somers does not disclose obtaining a result from the service organization in response to the request. The Office Action, however, states that Ball discloses this feature and points to col. 5, lines 26-56 of Ball for support (Office Action – page 7).

Ball discloses a system for collecting and aggregating data from network entities for a data consuming application (Ball – Abstract). Ball at col. 5, lines 26-56 refers to Fig. 3, which illustrates an accounting process 14 that includes Internet service provider 100, Enterprise A and Enterprise B. Ball discloses that collectors 52a-52d are distributed at specific points of presence (POP), such as remote access concentrators 102. The remote concentrators allow a mobile user 106 or Internet user 107 to access an enterprise over the Internet. Ball further discloses that accounting server 13 runs the accounting process 14. The accounting process 14 includes a flow data collector layer 18 that gathers data from the service provider network 100. The distributed flow data collectors 52a-52d collect transaction specific details about a user's connection type and actual network usage, which are converted into network accounting records (NARs).

This portion of Ball does not disclose or suggest a service level agreement manager that obtains a result from a service organization in response to a request from a client organization to the service level agreement manager, as recited in claim 5.

For at least the reasons discussed above, the combination of Somers and Ball does not disclose or suggest each of the features of claim 5. Accordingly, withdrawal of the rejection and allowance of claim 5 are respectfully requested.

Claims 6 and 7 are dependent on claim 5 and are believed to be allowable for at least the reasons claim 5 is allowable. In addition, these claims recite additional features not disclosed or suggested by the combination of Somers and Ball.

For example, claim 6, as amended recites recording the at least one performance measurement and modifying an estimated capacity associated with the service organization based on the at least one performance measurement. This feature is similar to a feature discussed above with respect to claim 1.

As discussed above with respect to claim 1, Somers does not disclose or suggest this feature. Ball also does not disclose or suggest this feature. For at least this additional reason, withdrawal of the rejection and allowance of claim 6 are respectfully requested.

Claim 8, as amended, recites each service level manager is configured to receive a request from at least one of the client processes, determine whether to accept the request based on an estimated capacity of a service provider, accept the request when the estimated capacity is adequate, measure performance associated with fulfilling the request, and modify the estimated capacity based on the measured performance.

Similar to the discussion above with respect to claim 1, Somers does not disclose or suggest measuring performance associated with fulfilling a request or modifying estimated capacity of a service provider based on the measured performance. Ball also does not disclose or suggest these features.

For at least these reasons, withdrawal of the rejection and allowance of claim 8 are respectfully requested.

Claims 9-11 are dependent on claim 8 and are believed to be allowable for at least the reasons claim 8 is allowable. Accordingly, withdrawal of the rejection and allowance of claims 9-11.

Claim 15 is dependent on claim 12 and is believed to be allowable for at least the reasons claim 12 is allowable. Ball does not make up the deficiencies in Somers with respect to claim 12 discussed above. Accordingly, withdrawal of the rejection and allowance of claim 15 are respectfully requested.

NEW CLAIMS

New claims 16 and 17 have been added. Claims 16 and 17 are dependent on claim 8 and are believed to be allowable for at least the reasons claim 8 is allowable. In addition, claims 16 and 17 recite additional features not disclosed or suggested by the cited references.

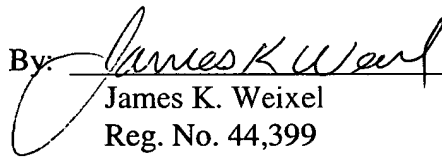
For example, claim 16 recites that each of the plurality of client processes is assigned a number of tokens and when determining whether to accept the request from a first client process to a first service level manager, the first service level manager is further configured to determine whether to accept the request based on the number of tokens associated with the first client process. Support for this feature is given, for example, on page 12, line 13 to col. 13, line 2 of the specification. Claim 17 recites that when the request from the first client process is accepted, the first service level manager is further configured to deduct a number of tokens from the first client. Support for this feature is given, for example, on page 13, lines 2-4 of the specification. Neither Somers nor Ball discloses or suggests the subject matter of either of claims 16 or 17.

CONCLUSION

In view of the foregoing amendments and remarks, the applicant respectfully requests withdrawal of the outstanding rejections and the timely allowance of this application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 07-2339 and please credit any excess fees to such deposit account.

Respectfully submitted,

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MARKED-UP VERSION SHOWING CHANGES MADE

Claims 1, 3, 5, 6, 8 and 12 have been amended as follows.

1. (Amended) In a system having a client computer system and a service provider computer system programmed with a service implementation, an apparatus comprising:

a service level agreement manager disposed between the client computer system and the service implementation, the service level agreement manager comprising:

an admission controller configured to control admission of the client computer system to the service implementation using a service level agreement;

a performance measurement module in communication with the admission controller and configured to:

measure performance of the service implementation, and

modify an estimated capacity of the service provider based on the measured performance; and

a specification module in communication with the admission controller and with the performance measurement module.

3. (Amended) A method for service level formation, comprising:

[providing a client computer system;]

providing a service level agreement manager, the service level agreement manager having an admission controller, a specification module and a performance measurement module;

establishing communication between [the] a client computer system and the service level agreement manager;

invoking the specification module of the service level agreement manager;

obtaining performance information from the performance measurement module;
obtaining usage information [associated] from the client; [and]
comparing the performance information and the usage information to determine if there
exists a basis for forming a service level agreement;
measuring, by the performance measurement module, actual performance associated with
at least one service level agreement; and
modifying estimated capacity, by the service level agreement manager, based on the
measured actual performance.

5. (Amended) A method for managing system performance, comprising:
providing a service level agreement manager;
[providing a client organization;
providing a service organization;]
forming a service level agreement between [the] a client organization and [the] a service
organization;
receiving a request from the client organization to the service level agreement manager;
with the service level agreement manager,
determining if the request is within the scope of the service level agreement;
if the request is within the scope of the service level agreement, providing the
request to a performance measurement module and to the service organization;
obtaining a result from the service organization in response to the request;
taking at least one performance measurement associated with performance
response of the service organization to the request; and

checking the at least one performance measurement taken against the service level agreement.

6. (Amended) The method of Claim 5, further comprising:
recording the at least one performance measurement; and
modifying an estimated capacity associated with the service organization based on the at
least one performance measurement.

8. (Amended) A network, comprising:
[a plurality of client processes;]
a plurality of service level managers;
at least one invocation infrastructure for communication between [the] a plurality of
client processes and the plurality of service level managers; and
each service level manager of the service level managers in communication with a
respective service implementation and configured to:
receive a request from at least one of the client processes,
determine whether to accept the request based on an estimated capacity of a
service provider,
accept the request when the estimated capacity is adequate,
measure performance associated with fulfilling the request, and
modify the estimated capacity based on the measured performance.

12. A network, comprising:

[a client process;]

a first plurality of service level managers;

at least one invocation infrastructure for communication between said first plurality of service level managers and [said] a client process;

each service level manager of said first plurality of service level managers in communication with a respective service implementation of a first plurality of service implementations;

each said service implementation of said first plurality of service implementations in communication with at least one service level manager of a second plurality of service level managers; and

each service level manager of said second plurality of service level managers in communication with a respective service implementation of a second plurality of service level implementations, wherein at least one of the first plurality and second plurality of service level managers is configured to:

enter into a service level agreement with the client process,

receive a request from the client process,

determine whether to accept the request based on an estimated capacity of a service provider,

accept the request when the estimated capacity is adequate,

measure performance associated with fulfilling the request, and

modify the estimated capacity based on the measured performance.